

Patent Claims

1. Burner (10) for the production of a hot gas, which burner (10) opens with a burner outlet (22) edged with an outlet edge (16, 17) into a combustion chamber (23), in which a fuel-air mixture flowing out from the burner outlet (22) with the formation of an outflow boundary layer (18, 18') forms a flame (20) after the ignition of the burner (10), **wherein** to prevent periodic releases of heat and the therewith connected thermoacoustic oscillations in the combustion chamber (23), means (21) are arranged at the burner outlet (22) for changing the thickness of the outflow boundary layer (18, 18').
2. Burner according to claim 1, wherein the means for changing the thickness of the outflow boundary layer (18, 18') include a shear layer fence (21) which runs along the outlet edge (16, 17) of the burner outlet (22) and projects into the combustion chamber (23) with its height substantially parallel to the flow direction.
3. Burner according to claim 2, wherein the height of the shear layer fence (21) is a few millimeters, preferably about 5 mm.
4. Burner according to one of claims 1-3, wherein the burner (10) is constituted as a double cone burner and includes at least two hollow, conical partial members (11, 12) which are mutually offset in a midplane (24), such that adjacent walls of the partial members (11, 12) form tangential air inlet channels for the inflow of combustion air into the internal space (25) bounded by the partial members (11, 12), with the edges of the partial members (11, 12) toward the combustion chamber forming the outlet edges (16, 17) of the burner outlet (22).